

Amendments to the Claims

Claim 1 (currently amended): A separation matrix ~~comprised of~~ comprising

- (a) a porous support; and
- (b) ~~to which ligands have been immobilised, optionally via spacer arms, wherein said ligands comprise including~~ one or more sulphonamides wherein an R group of the sulphonyl is an aliphatic compound; wherein said ligands are immobilized, optionally via spacer arms, on said porous support.

Claim 2 (currently amended): ~~A matrix according to~~ The matrix of claim 1, wherein the sulphonamide is coupled to the porous support via its nitrogen.

Claim 3 (currently amended): ~~A matrix according to~~ The matrix of claim 1, wherein the sulphonamide is coupled to the porous support via its sulphur.

Claim 4 (currently amended): ~~A matrix according to any one of the preceding claims,~~ The matrix of claim 1, wherein the R group is a methyl group.

Claim 5 (currently amended): ~~A matrix according to any one of the preceding claims,~~ The matrix of claim 1, wherein the nitrogen of the sulphonamide(s) is a primary or secondary amine.

Claim 6 (currently amended): ~~A matrix according to any one of the preceding claims,~~ The matrix of claim 1, wherein the ligands are monoamines.

Claim 7 (currently amended): ~~A matrix according to any one of claims 1-5,~~ The matrix of claim 1, wherein the ligands are polyamines.

Claim 8 (currently amended): ~~A matrix according to~~ The matrix of claim 7, wherein each polyamine comprises two to six amines.

Claim 9 (currently amended): ~~A matrix according to claim any one of the preceding claims,~~ The matrix of claim 1, wherein the ligands are present as repetitive units of a polymer immobilised to the support.

Claim 10 (currently amended): ~~A matrix according to~~ The matrix of claim 9, wherein the polymer is a polyethylene imine.

Claim 11 (currently amended): ~~A matrix according to claim 9 or 10,~~ The matrix of claim 9, wherein the polymer exhibit two or more different ligand groups.

Claim 12 (currently amended): ~~A matrix according to claim any one of the preceding claims,~~ The matrix of claim 1, wherein the ligands are aliphatic compounds.

Claim 13 (currently amended): ~~A matrix according to any one of the preceding claims,~~ The matrix of claim 1, wherein the support is a cross-linked polysaccharide.

Claim 14 (currently amended): A chromatography column packed with the separation matrix of claim 1 ~~a separation matrix as defined in any one of claims 1-13.~~

Claim 15 (currently amended): ~~A chromatography column according to The~~
chromatography column of claim 14, which is substantially sterile.

Claim 16 (currently amended): ~~A chromatography column according to The~~
chromatography column of claim 14 or 15, which is a disposable column.

Claim 17 (original): A process of preparing a matrix for separation of antibodies,
which method comprises a first step of immobilising amines and/or polyamines to a
porous support and a subsequent step of sulphonylating said amines to provide
aliphatic sulphonamide ligands.

Claim 18 (original): A process of preparing a matrix for separation of antibodies,
which method comprises a first step of activating a porous support and a subsequent
step of attaching sulphonamides to the activated sites via their sulphurs to provide
aliphatic sulphonamide ligands.

Claim 19 (currently amended): A method of isolating antibodies from a liquid, which
method comprises the steps of

- (a) providing a liquid that comprises at least one antibody[[:]];
- (b) contacting said liquid with a separation matrix, which comprises one or more
aliphatic sulphonamide ligands, to adsorb one or more antibodies to said
matrix; and, optionally,
- (c) passing an eluent over said matrix to release one or more antibodies; and
- (d) recovering at least one antibody from a fraction of the eluent.

Claim 20 (currently amended): ~~A method according to~~ The method of claim 19, wherein the liquid provided in step (a) ~~also additionally~~ comprises one or more other proteins.

Claim 21 (currently amended): ~~A method according to~~ The method of claim 19 or 20, wherein the separation matrix of step (b) is provided in a chromatography column.

Claim 22 (currently amended): ~~A method according to any one of claims 19-21, The~~ method of claim 19, wherein the separation matrix of step (b) is as defined in claim 1 ~~any one of claims 1-13.~~

Claim 23 (currently amended): ~~A method according to~~ The method of claim 21, wherein step (b) is performed at a close to neutral pH, ~~such as pH 7.2-7.6, preferably about 7.4.~~

Claim 24 (currently amended): ~~A method according to any one of claims 19-23, The~~ method of claim 19, wherein step (c) is a gradient elution performed by adding an eluent of decreasing salt concentration to the separation matrix.

Claim 25 (currently amended): ~~A method according to any one of claims 19-24, The~~ method of claim 19, wherein step (b) is performed at a pH of or above neutral and step (c) is a gradient elution performed by adding an eluent of decreasing pH.

Claim 26 (currently amended): ~~A method according to any one of claims 19-25, The~~
method of claim 19, wherein the antibodies recovered in step (d) are human or
humanised antibodies.

Claim 27 (currently amended): ~~A method according to any one of claims 19-26, The~~
method of claim 19, wherein the antibodies recovered in step (d) are immunoglobulin
G (IgG).

Claim 28 (currently amended): ~~A method of determining the quantity of an antibody,~~
~~which method encompass a method as defined in any one of steps 19-27 and in~~
~~addition a step (e) of~~ The method of claim 19, further comprising determining the
amount of isolated antibody spectrophotometrically.